

What is claimed is:

1. An oxygenated hemoglobin in powdered form.
2. The oxygenated hemoglobin of claim 1, wherein the hemoglobin is resistant to oxidation.
3. The oxygenated hemoglobin of claim 1, wherein the hemoglobin is stable at room temperature.
4. The oxygenated hemoglobin of claim 1, wherein the hemoglobin is pegylated.
5. A composition of powdered hemoglobin comprising the oxygenated hemoglobin of claim 1 and no more than 20% of the met form of hemoglobin.
6. A method of preparing a powdered form of a protein, which comprises:
  - (a) mixing a solution of the protein with inulin, and
  - (b) drying the mixture.
7. The method of claim 6, wherein the inulin is derived from Chicory Root.
8. The method of claim 6, which further comprises mixing a solution of the protein with inulin and with a reducing sugar, and then drying the mixture.
9. The method of claim 8, wherein the reducing sugar is glucose.
10. The method of claim 8, wherein the reducing sugar is tagatose.
11. The method of claim 6 or 8, wherein the drying step comprises lyophilization.

12. The method of claim 6 or 8, wherein the drying step comprises air drying.
13. The method of claim 12, wherein the mixture is cooled as it is being air dried.
14. The method of claim 6 or 8, wherein the protein is hemoglobin.
15. The method of claim 14, wherein the hemoglobin is pegylated.
16. The method of claim 14, wherein the hemoglobin is oxygenated.
17. The method of claim 14, wherein the powdered hemoglobin contains no more than 20% of the met form of hemoglobin.
18. A powdered hemoglobin prepared by the method of claim 14.
19. The powdered hemoglobin of claim 18, wherein the powdered hemoglobin contains no more than 20% of the met form of hemoglobin.
20. A method of preparing a blood substitute which comprises reconstituting the powdered hemoglobin of claim 1 or 18.
21. The method of claim 20 which comprises dissolving the powdered hemoglobin in an aqueous buffer solution.
22. The method of claim 21, which comprises cooling the buffer.
23. The method of claim 21, which comprises aerating the buffer.
24. A blood substitute prepared by the method of claim 20.
25. The blood substitute of claim 24, wherein the hemoglobin comprises no more than 20% of the met form of hemoglobin.

26. A method of treating a subject which comprises administering the blood substitute of claim 24 to the subject.

27. A method of treating a subject which comprises reconstituting the powdered hemoglobin of claim 1 or 18, and administering the reconstituted hemoglobin to the subject.

28. The method of claim 26 or 27, wherein the subject has a blood loss due to a surgical procedure or to a wound.

29. The composition of claim 5, wherein the powdered hemoglobin contains no more than 10% of the met form of hemoglobin.

30. The composition of claim 29, wherein the powdered hemoglobin contains no more than 5% of the met form of hemoglobin.

31. The method of claim 17, wherein the powdered hemoglobin contains no more than 10% of the met form of hemoglobin.

32. The method of claim 31, wherein the powdered hemoglobin contains no more than 5% of the met form of hemoglobin.

33. The powdered hemoglobin of claim 18, wherein the powdered hemoglobin contains no more than 10% of the met form of hemoglobin.

34. The powdered hemoglobin of claim 33, wherein the powdered hemoglobin contains no more than 5% of the met form of hemoglobin.

35. The blood substitute of claim 25, wherein the powdered hemoglobin contains no more than 10% of the met form of hemoglobin.

36. The blood substitute of claim 35, wherein the powdered hemoglobin contains no more than 5% of the met form of hemoglobin.

37. The pegylated hemoglobin of claim 4, which comprises one or more polyethylene glycol (PEG) molecules with a molecular weight of 200-40,000 daltons.

38. The pegylated hemoglobin of claim 4, wherein the hemoglobin is pegylated with 2-8 PEGs.

39. The pegylated hemoglobin of claim 38, wherein the hemoglobin is pegylated with 2-4 PEGs.

40. The pegylated hemoglobin of claim 38, wherein the PEGs comprise a PEG with a molecular weight of 5,000 daltons.

41. The method of claim 15, wherein the pegylated hemoglobin comprises one or more polyethylene glycol (PEG) molecules with a molecular weight of 200-40,000 daltons.

42. The method of claim 15, wherein the hemoglobin is pegylated with 2-8 PEGs.

43. The method of claim 42, wherein the hemoglobin is pegylated with 2-4 PEGs.

44. The method of claim 42, wherein the PEGs comprise a PEG with a molecular weight of 5,000 daltons.